

Application No.: 09/828,607
Amendment dated April 23, 2004
In response to Examiner's Office Action dated December 23, 2003

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in this application.

Listing of Claims:

Claim 1 (currently amended): A method for repairing a defect locus in a nonarticular cartilage tissue of a mammal comprising the steps of:

a) preparing an osteogenic device comprising an osteogenic protein disposed in a biocompatible, bioresorbable carrier, wherein the osteogenic protein is selected from the group consisting of OP-1, OP-2, OP-3, BMP-2, BMP-3, BMP-4, BMP-5, BMP-6, BMP-9, BMP-10, BMP-11, BMP-15, BMP-3B, DPP, Vg-1, Vgr-1, 60A protein, GDF-1, GDF-2, GDF-3, GDF-8, GDF-9, GDF-10 and GDF-11; and

b) implanting the osteogenic device into the defect locus, thereby inducing the formation of functional permanent replacement cartilage tissue to repair the defect locus.

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Claim 2 (original): The method of claim 1, wherein the defect locus is in a fibrocartilaginous tissue.

Claim 3 (previously presented): The method of claim 1, wherein the defect locus is in a larynx.

Claim 4 (previously presented): The method of claim 1, wherein the defect locus is in a trachea.

Claim 5 (original): The method of claim 1, wherein the defect locus is in an intervertebral disc.

Claim 6 (original): The method of claim 1, wherein the defect locus is in an interarticular meniscus.

Claim 7 (previously presented): The method of claim 1, wherein the defect locus is in an ear, a nose, or a rib.

Claim 8 (original): The method of claim 1, wherein the carrier comprises autologous or allogenic tissue.

Claim 9 (original): The method of claim 8, wherein the carrier comprises devitalized allogenic cartilage.

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Claims 10 (previously presented) : The method of claim 9, wherein the defect locus is in a larynx.

Claim 11 (previously presented) : The method of claim 9, wherein the defect locus is in a trachea.

Claim 12 (original) : The method of claim 9, wherein the defect locus is in an intervertebral disc.

Claim 13 (original) : The method of claim 9, wherein the defect locus is in an interarticular meniscus.

Claims 14 (original) : The method of claim 1, wherein the carrier comprises collagen.

Claims 15 (previously presented) : The method of claim 14, wherein the defect locus is in a larynx.

Claim 16 (previously presented) : The method of claim 14, wherein the defect locus is in a trachea.

Claim 17 (original) : The method of claim 14, wherein the defect locus is in an intervertebral disc.

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Claim 18 (original): The method of claim 14, wherein the defect locus is in an interarticular meniscus.

Claim 19 (original): The method of claim 1, wherein the carrier comprises carboxymethylcellulose.

Claim 20 (original): The method of claim 19, wherein the carrier further comprises allogenic or autologous blood.

Claims 21 (previously presented): The method of claim 19, wherein the defect locus is in a larynx.

Claim 22 (previously presented): The method of claim 19, wherein the defect locus is in a trachea.

Claim 23 (original): The method of claim 19, wherein the defect locus is in an intervertebral disc.

Claim 24 (original): The method of claim 19, wherein the defect locus is in an interarticular meniscus.

Claim 25 (original): The method of claim 1, wherein the carrier comprises one or more members selected from the group consisting of hydroxyapatite; alkylcelluloses; poloxamers;

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gelatins; polyethylene glycols; dextrins; vegetable oils; and polymers of lactic acid; butyric acid, glycolic acid, and combinations thereof.

Claim 26 (original): The method of claim 1, wherein the osteogenic protein is OP-1.

Claim 27 (presently presented): The method of claim 1, wherein the osteogenic protein is selected from the group consisting of OP-2, OP-3, BMP-2, BMP-3, BMP-4, BMP-5, BMP-6, BMP-9, BMP-10, BMP-11, BMP-15, BMP-3B, DPP, Vg-1, Vgr-1, 60A protein, GDF-1, GDF-2, GDF-3, GDF-8, GDF-9, GDF-10 and GDF-11.

Claims 28-29 (canceled).

Claim 30 (previously presented): The method of claim 26, wherein the defect locus is in a larynx.

Claim 31 (previously presented): The method of claim 26, wherein the defect locus is in a trachea.

Claim 32 (original): The method of claim 26, wherein the defect locus is in an intervertebral disc.

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Claim 33 (original): The method of claim 26, wherein the defect locus is in an interarticular meniscus.

Claim 34 (original): The method of claim 1, wherein the osteogenic protein and the carrier are implanted under the perichondrium of the nonarticular cartilage tissue.

Claim 35-46 (previously canceled).

Claim 47 (currently amended): A method of promoting chondrogenesis at a nonarticular defect locus in a mammal comprising the steps of:

a) preparing an osteogenic device comprising an osteogenic protein disposed in a devitalized cartilage carrier, wherein the osteogenic protein is selected from the group consisting of OP-1, OP-2, OP-3, BMP-2, BMP-3, BMP-4, BMP-5, BMP-6, BMP-9, BMP-10, BMP-11, BMP-15, BMP-3B, DPP, Vg-1, Vgr-1, 60A protein, GDF-1, GDF-2, GDF-3, GDF-8, GDF-9, GDF-10 and GDF-11; and

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b) implanting the osteogenic device into the defect locus, thereby inducing the formation of functional permanent cartilage tissue,

wherein the cartilage carrier is configured to fit into the defect locus.

Claim 48 (original): The method of claim 47, wherein the cartilage carrier is a cartilage allograft.

Claim 49 (canceled).

Claim 50 (previously presented): The method of claim 47, wherein the osteogenic protein is human OP-1.

Claims 51-56 (canceled).

Claim 57 (previously presented): The method of any one of claims 1, 26, 47 and 50, wherein the carrier is selected from the group consisting of a gel, paste, putty, cement, sheet and liquid formulation.

Claim 58 (previously presented): The method of claim 57, wherein the carrier is a gel formulation.

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Claim 59 (previously presented) : The method of claim 57, wherein the carrier is a liquid formulation.

Claim 60 (previously presented) : The method of claim 58 or 59, wherein the formulation is for administration by injection.